1.0 EXECUTIVE SUMMARY

In October of 2017, Milwaukee Public Schools ("MPS" or "the district") contracted with MGT of America Consulting, LLC ("MGT") to develop recommendations for Long-Range Facility Master Planning (LRFMP) to address the future facility needs of the district. Using input from the community, the goal of a master plan is to create a blueprint or road map, based on best practice facility standards, that identifies and prioritizes facility needs, and presents strategies for effective and efficient facility improvement and usage over the planning period. For this project, the MGT team gathered facility and community data. This report provides findings and recommendations based on that information.

The project included the following tasks:

- Project initiation
- Development of facilities and site inventory system
- Programmatic review of school facilities to establish facility standards
- Community engagement
- Facility assessments
- Analysis of community demographics, enrollment and capacities
- Review of educational trends and best practices
- Budget estimates
- Prioritization and budgeting
- Preparation and presentation of final facilities master plan

This report consists of eight sections. Sections 1-6 include a description of the methodology and the data gathered in that section. The final section includes the findings and recommendations, as well as supporting recommendations that may assist with implementation. The report also includes appendices that contain enrollment projection and capacity review details, data from the community input, the *Educational Suitability Guide* used for facility assessments, and the facility reports for each school.

The report sections are as follows:

Section 1.0 – Executive Summary

Section 2.0 - Background

Section 3.0 – Demographics, Enrollment, Capacity and Efficiency

Section 4.0 – Community Engagement

Section 5.0 - Educational Program Review

Section 6.0 - Facility Program Review

Section 7.0 – Facility Assessments

Section 8.0 – Findings and Recommendations

Appendices



BACKGROUND

Milwaukee Public Schools is a large, urban school district encompassing downtown Milwaukee and the neighborhoods around the city core. It is the largest district in the largest city in the state. The city of Milwaukee ranks among the largest 25 cities in the US. The city population has grown from 594,833 in the 2010 census to an estimated 2015 level of 599,498. However, the population in the city is aging and the number of live births is declining, and is projected to continue to decline over the next 10 years. The Great Recession had a significant impact on housing in Milwaukee and new housing investment is

stagnant. Milwaukee has long been known for manufacturing. While many industries and companies have left the city, there are still strong businesses located in Milwaukee including ten Fortune 1000 companies like Johnson Controls, NW Mutual, and Harley Davidson.

The school district serves more than 75,000 students, including 88% students of color, 80% economically disadvantaged, and 20% special needs. MPS schools have students and families who speak more than 50 languages in

Families in Milwaukee have significant choice options, including grade configuration, program types, and world languages.

more than 140 schools of choice, including neighborhood, specialty, and charter schools. It is important to note that although there are schools with attendance areas identified, those boundaries pertain more to transportation support than attendance opportunities. Students and families have significant choices available for types of schools at all grade levels, as shown below.

TYPE OF SCHOOLS	NUMBER OF SCHOOLS OF THIS TYPE	GRADE LEVELS AVAILABLE
Neighborhood Schools	93	Ages 3 and 4 through High School ¹
Neighborhood Specialty Schools	6	Ages 3 and 4 through High School
City-wide Specialty Schools	27	Ages 3 and 4 through High School
Alternative Schools	6	Middle and High Schools
Charter Schools: Instrumentality	5	Ages 3 and 4 through High School
Charter Schools: Non-Instrumentality	18	Ages 3 and 4 through High School
Partnership Schools	8	Mainly High School

In addition to types of schools listed above, within each type there are a variety of grade configurations, with programs starting for children at age three and extending through age 21 for identified students.

Milwaukee also offers choices for families interested in different instructional programs. The district offers Montessori education at all grades in three of the four regions of the district, including one of the only PK – 12 Montessori high schools in the country. The district offers an International Baccalaureate

¹ Note: Some of the neighborhood middle and high schools are also called "comprehensive" schools that provide a wider array of course choices and offer a more tradition or comprehensive middle and high school experience.



(IB) program, including the *Middle Years and Diploma Programmes*, and has several bi-lingual schools as well as language immersion programs in French, Spanish, German, and Italian. High school choices also include several Career and Technical Education (CTE) programs. For more detailed information about Milwaukee Public Schools' educational programs, see **Sections 2.0 and 5.0**.

DEMOGRAPHICS, ENROLLMENT AND CAPACITY

The child-bearing age population in Milwaukee is not growing, the Milwaukee population is getting older, and the live birth rate is declining. Therefore, unless programmatic or facility changes lead to higher student recruitment and retention rates, MPS can reasonably expect that its enrollment will decline over the next ten years.

The capacity of a school is defined as the number of students a building can support based on the program of studies offered there. For this review, MGT used the district's capacity formulas to identify the number of student seats in each school, region, and district-wide. The formula is based on the number of full-size classrooms, adjusted to ensure space for district-identified programs, including library, art and music rooms at the elementary schools, and space for students with special needs at all levels. This formula has been in use for several years, and the resulting capacity numbers for each school are annually reported to both the city and the state.

In addition to the capacity number, MGT has created an "efficiency" score for each school. Using MPS' building capacity data and the 2017-18 enrollment, MGT defined the efficiency of each building, calculated by dividing enrollment by each building's capacity. The key, below, shows the building efficiency rates calculated using the MPS capacities and the current enrollment at each school. The building efficiency rates are color-coded in the exhibits to identify best practices for building use. Nationally recognized "best practices" indicate that capacity rates that are both too high and too low are problematic: too high means that there is **inadequate** space for the enrollment and program; too low means there is **inefficient** use of space for the enrollment and program.

EFFICIENCY RATE	DESCRIPTION
> 110	Inadequate Space
95 - 110	Approaching Inadequate Space
80 - 95	Adequate Space
70 - 80	Approaching Inefficient Use of Space
< 70	Inefficient Use of Space

In Milwaukee, many schools are inefficient based on the analysis described above. There are forty-two schools that have enrollment efficiency ratings of less than 70%. These schools are significantly <u>underutilized</u>. They may have empty spaces or may have expanded people/programs to occupy the spaces. They may or may not have created spaces for all required programs – e.g., art and music – because they may not have staff to lead these programs.

There are also forty-two schools that have enrollment efficiency ratings of more than 110%. These schools are significantly <u>over-utilized</u>. They have no empty spaces and likely have expanded people/programs into every possible location in the building. The buildings with over-capacity likely lack core space – restrooms, media center, cafeteria, hall spaces - to accommodate the enrollment. They may have to operate with multiple lunch periods and may be moving students at different times to reduce over-crowding in corridors. See **Section 3.0** for detailed information about the building capacity formula and the efficiency rating of each school.

Like many urban districts with declining enrollment, MPS has overall excess capacity. In an effort to recruit and retain more students, MPS has implemented a variety of programs and rebranding efforts over the last ten years. There have been 429 different names for schools, programs, and buildings in MPS since 2008. Along with new program implementation and rebranding strategies, MPS has offered a variety of grade configuration choices for MPS students. Currently, MPS buildings house 21 different grade configurations.

The complexity of the school district makes enrollment forecasting a challenge. Historical enrollment data includes students enrolled in charter schools but counting toward MPS for enrollment purposes. Identifying and extracting the number of students in that category for the last ten years is not possible to do with any sort of modelling defensibility. Instead, MGT produced an enrollment forecast based on available historical data, meaning that forecasted enrollment includes students that could be attending charter schools in the future. Note, however, that even when those students are included, MPS still has excess capacity. If the number of charter school students is extracted from the enrollment forecast, the number of empty seats in MPS is projected in to be even higher in 2027-28.

Given this information and data, MPS can reasonably expect enrollment to continue to decline and the number of excess seats to increase as shown in the table below. The enrollment shown for 2027-28 is a projection, based on MGT's methodologies. The capacity is left unchanged from 2017-18; hence, an increase in the number and percent of excess seats to 23% over the next 10-year period.

YEAR	ENROLLMENT / PROJECTION	CAPACITY	EXCESS SEATS / %	
2017-2018	66,622 ²	78,074	11,452/ 14%	
2027-2028	59,969	78,074	18,105 / 23%	

Source: District data and MGT projections, 2018.

The enrollment/capacity gap varies among the district's four regions. As shown in the table below, the Central and Northwest regions have the largest difference between the enrollment in and the capacity of the region's schools. The Southwest region currently has more students than the capacity in the schools of that region. The enrollment and capacity numbers shown on the next page are based on the schools in each region and their cumulative capacity.

² District enrollment minus Charter/ Contract schools not in district facilities.



REGION	ENROLLMENT	CAPACITY	PERCENT
Central	13,957	20,027	70%
East	16,770	18,857	89%
Northwest	14,631	20,533	71%
Southwest	21,264	18,657	114%
District TOTAL	66,622	78,074	85%
Partner / Charter Schools	8,899	1,586	Includes non-MPS bldgs.
TOTAL/AVERAGE	75,521	79,660	95%

Source: District data compiled by MGT, 2018.

It is important to note that the district's average efficiency rating is excellent – 95%. Few large, urban districts can boast of that utilization percentage. However, that percentage is an average that obscures the real story. As described earlier, there are schools that are significantly over-enrolled/utilized as well

Empty seats mean inefficient use of resources. As of 2017-18, MPS has more than 11,000 empty seats.

as schools that are significantly under-enrolled/utilized. As shown in the table above, there are currently 11,452 "empty seats" in district facilities.

MGT included operating costs per student and per Gross Square Foot (GSF) in the review of schools. The average operating cost per student in Milwaukee is \$11,002, with amounts ranging from \$18,192 to \$6,347 per student. The

average facility operating cost per GSF is \$60.77, ranging from \$15.05 to \$199.53. Using the average per student operating cost and the 11,452 empty seats, Milwaukee is spending \$125,994,904.00 ($$11,002 \times 11,452$ students = \$125,994,904) for students that don't exist. When capacity and enrollment are not balanced, the district is spending resources on empty spaces.

MGT also created a cost estimate for empty seats with data from a national source. Using the <u>American School and University</u> magazine's annual review of Maintenance and Operations (M&O)³ costs, and a conservative conversion estimate of seats into students of 65% (since scheduling varies between elementary, middle and high schools and thus seat conversion is not a one-to-one correlation). MGT conservatively estimates that MPS is spending \$6,132,500.00 on empty seats in FY 2017-18 (11,452 empty seats x 65% x \$823.84/student). Over the next ten-years, the district could spend approximately \$61,325,001.00 in M&O costs for empty seats if substantial efforts are not taken to reduce the excess capacity.

Maintenance and operations cost calculations were determined using the American University Study 2006-2007. http://www.asumag.com/maintenance/36th-annual-maintenance-operations-cost-study-schools. Note that MGT went back 10-years (pre-recession) to get costs that are more in line with current data.



COMMUNITY ENGAGEMENT

Engaging the community is an important part of developing recommendations for long-range facility master planning. In Milwaukee the engagement plan included a variety of venues and approaches, all with a goal of hearing input from the community and providing opportunities for feedback.

The community input/feedback sessions included a total of eight large group meetings held at various locations across the district and two informal opportunities at scheduled recreation program events. An online survey that was open to the community at-large and open to high school students during a social studies class allowed even greater participation. Despite significant effort on the part of district staff to publicize and support the events, the large group input sessions had relatively small attendance. However, the online survey generated significant responses. A total of more than 8,000 responded to the online survey, including nearly 4,000 students.

Most respondents indicated a high priority interest in equity across the district for both schools and programs. There was interest in high quality CTE programs as well as more opportunities for enrollment in other well-received programs, like IB and Montessori. Community respondents tended to have split perspectives (often 50/50) on the quality of educational programming throughout the district and on the condition of school facilities within the district. Students, on the other hand, expressed a more cohesive perspective, with roughly 70% agreeing that schools are in good condition and that the school district has high quality and equitable programming. See **Section 4.0** for more detailed information about the community engagement process and data.

EDUCATIONAL PROGRAM REVIEW

MGT conducted an educational program review to ensure that the facilities were evaluated based on existing and future program needs. The review included detailed discussions about every aspect of instruction in MPS, including basic curriculum for elementary, middle, and high schools, as well as specialty programs like International Baccalaureate (IB) and Montessori. Some instructional models do not have significant facility implications; however, serving 3- or 4-year-old students requires an in-room restroom, and Montessori rooms are supposed to be large enough to accommodate the various furniture and supply areas so that students have easy access to materials as they plan and choose their learning activities.

The educational program review culminated in the development of the *Milwaukee Public Schools Educational Suitability Guide*⁴ which defines every instructional space based on four criteria:

- Qualities of the learning environment: natural light, heating or ventilation, acoustics.
- Size of each space: based on square footage, including any special in-room spaces.
- Location: how each space should be positioned relative to other places in the building.
- Storage and fixed equipment: required items, including ventilation for kilns and safety equipment in science labs, and general storage spaces.

⁴ See **Appendix** for the *Educational Suitability Guide for Milwaukee Public Schools.*



The educational program review criteria were used to evaluate each school in the district based on how well the facility supported the instructional program housed there. MGT's assessment software, BASYS®, was calibrated to MPS standards and site evaluators were trained based on the MPS site standards to ensure inter-rater reliability. Each school was visited by a trained educator who walked the site with the principal/designee. Each school received a score for educational suitability on a scale of 1-100. A school with spaces perfectly matched to the educational program standards would score 100.

In addition to educational suitability, MGT assessors also reviewed the technology readiness of each site. The technology readiness score is not based on the number of computers or smartboards. Rather, MGT's assessment includes the infrastructure needed to support current and future technology. Each school received a score for technology readiness on a scale of 1-100. A school with spaces perfectly matched to the technology standards would score 100.

MPS also asked for a review of national educational trends and best practices. The district identified three areas for a specific review:

EDUCATIONAL TRENDS

MGT conducted research to determine how school districts across the country are managing the challenges of a school choice environment, balancing a decentralized versus a centralized school management system, and how CTE education can impact education reform in urban school districts. The goal was to identify any best practices and facility implications.

MGT provided research-based approaches from a broad range of literature and practical examples from urban school districts in other states that had similar populations.

Key findings from the research and best practices within urban school districts included:

School Choice

- Ensure that a website and available print materials provide clear and helpful information on all the schools available within a certain geographical location, possibly by region.

 Parents must be informed and empowered to make the best decisions for their children.
- Provide high quality neighborhood schools because parents in urban environments
 often choose schools based upon location first, extended day opportunities next, and
 finally based upon the type(s) of extra-curricular activities that are available at the
 school site.

Decentralized vs Centralized School Management

- Create clear policies that define which management responsibilities lie at the district level and which ones lie at the school level.
- Ensure that individual school programming and initiatives are aligned with district-wide priorities.

CTE as Reform Strategy

Invest in pathway programs that provide intensive coursework during the 11th and 12th grade years. These pathways can lead to a certificate program or to a post-secondary area of study.



Each of these issues is discussed in greater detail, with accompanying examples from the research findings, in **Section 5**.

FACILITY PROGRAM REVIEW

Project staff conducted a facility program review to ensure that the facilities were evaluated based on existing or future district facility standards or expectations. The review included discussions with MPS facility staff in each specialty area—electrical, plumbing, HVAC, etc.—to ensure that the MGT team understood the issues and standards in each area.

MGT's team of trained assessors conducted facility condition assessments. The assessors visited each school and evaluated each system using MGT's BASYS® software. The site visits resulted in two condition scores1) building condition, and 2) site condition, each on a scale of 1-100. A school in new/like new condition could receive a score as high as 100. The BASYS® condition scores can be compared as the inverse of the architectural industry standard Facility Condition Index (FCI).

In addition to the scoring of facilities using the BASYS® assessments, MGT gathered information about the energy usage of each school. These data provide additional criteria for review during master planning discussions. Members of the MGT evaluation team looked at energy usage and created a matrix showing the energy costs per student enrolled and costs per square foot in the building. Energy usage ranged widely based on the type and age of HVAC systems, insulation, and number and type of windows. Having declining enrollment means that partially occupied buildings will carry higher than expected per student energy costs. The average energy cost per student in Milwaukee is \$147.95 per year, but the cost per student is higher in buildings that are under-enrolled or not meeting capacity. See **Section 6.0** for more details on the facility review methodology and facility issues.

FACILITY ASSESSMENTS

As described earlier, the MGT team conducted four assessments for each school using the BASYS® software. The assessments included:

- Building condition
- Site condition
- Educational suitability
- Technology readiness

The building and site condition assessments were conducted by a trained architect, engineer, or auditor who walked the building with the site engineer. The educational suitability and technology readiness assessments were conducted by a trained educator who walked each site with the principal/designee. Each school was evaluated in all four areas, while playfields and operational or administrative spaces were only evaluated for building and site condition. Following discussion with district staff, the four scores were weighted to create a Combined Score that makes it easier to develop priorities across all the assessments.

The weighting formula for the combined scores is shown below:



- Building condition 30%
- Site condition 20%
- Educational suitability 45%
- Technology readiness 5%

As described in **Section 7.0**, scores have been organized using a cut point criteria and color-coding, as shown below:

COMBINED SCORES	DESCRIPTION
> 90%	Excellent/Like New
80 - 89	Good
70 - 79	Fair
60 - 69	Poor
< 60	Unsatisfactory

Milwaukee has many old buildings—average age is 75.4 years—thus, many buildings that may have difficulty meeting the district's goal of offering schools that provide 21st Century learning opportunities

The district has excellent technology infrastructure to support students and staff.

and support the needs of diverse learners. Despite the age of district schools, the average building condition score of 79 is at the top of the "Fair" category and indicates that many buildings have been well maintained. The highest average score is for technology readiness which reflects how well the district's infrastructure supports the standards in place. The high technology readiness

scores are likely due to the significant emphasis the district has placed on technology for both student and teacher support.

RANGE/AVERAGE	BUILDING CONDITION SCORE	EDUCATIONAL SUITABILITY SCORE	TECHNOLOGY READINESS SCORE	SITE CONDITION SCORE	COMBINED SCORE
Range	41-90	46-83	76-100	37-96	57-88
Average	79	65	92	79	73

The lowest average score is for educational suitability, which reflects the degree to which the facility supports the educational program it houses. The educational suitability average score of 65 ("Poor") shows that many schools have spaces that do not meet the district's facility standards, or that the schools are missing required spaces like science labs, music or art rooms. Of the thirty-six (36) schools that scored less than 60 ("Unsatisfactory") on the educational suitability assessment, it is interesting to note that 61% were buildings that housed grades 7 and 8, including small K-8 buildings with single classrooms for each grade that included few of the program spaces required to meet middle school standards.

Using cost estimates for new construction and renovation as provided by the district and reviewed for local accuracy by project staff, MGT has created budget estimates for each building that would address these assessment score deficiencies and bring each school to a combined score of 85 ("Good").

The cost to improve all district facilities to a "Good" level is estimated at \$969,508,700.

FINDINGS AND RECOMMENDATIONS

Any long-range study includes gathering information and documenting issues, conditions, ideas, and data. In Milwaukee, this information has come from interviews, community events and surveys, document reviews, and on-site assessments.

FINDINGS:

MGT's recommendations are based on the following findings:

- Patrons, parents, and students in Milwaukee have shown significant support for identified/successful educational programs (IB, Montessori, bilingual, CTE-focus) as documented by both district reports and MGT survey data.
- Identified educational programs are not provided equitably across the district. Each region does not have each of these identified/successful programs.
- Milwaukee Public Schools has more capacity than needed to support current and projected student enrollment. There are currently more than 11,000 empty seats and, without changes, the number is projected to grow to more than 18,000 over the next 10 years. Having "empty seats" carries several costs, including lost revenue and increased per student energy and operational costs. Without changes in the district's facility inventory, these costs are projected to increase over time.
- Milwaukee has some persistently "hard to staff" schools and some positions that are regularly
 vacant and filled by contracted workers. These most often are in the areas of food service and
 school operational staff. Some teaching positions also fall into this category, especially in high
 skill/high demand areas like special education or CTE. The staffing problem is exacerbated by
 the large number of schools in the district.
- Milwaukee's schools are not equally able to provide 21st Century learning environments that support student projects, engagement, and collaboration, as documented by the BASYS[®] assessments.
 - The average technology readiness score is "Excellent," documenting the emphasis placed on student and faculty technology access over the last several years.
 - The average educational suitability score is "Poor," indicating major deficiencies in meeting educational program needs in many schools.
 - The average school building and school site condition score is "Fair" and there is a wide variation of scores with some schools having significant facility deficits, as documented by the BASYS® condition assessments for building and site conditions.

• The estimated cost to improve all facilities to a Combined Score of 85 in all four assessment categories is \$969,508,700.

RECOMMENDATIONS FOR LONG-RANGE FACILITY MASTER PLANNING

- 1. Provide equitable access to identified successful educational programs by locating International Baccalaureate, Montessori, CTE, and bi-lingual programs in all 4 regions. Considerations for equitable program distribution include the following:
 - a. Programs should be located where there is the possibility of cross-regional access to increase student and family choice opportunities.
 - Feeder patterns for specialty programs should be identified and defined both within each region and for city-wide programs so that students may fully experience specific courses of study.
 - c. Each region should contain at least one of the successful programs K-8 and middle school, Montessori, and IB, including the Middle Years Programme (MYP) and CTE. As examples:
 - Central: Focus on North HS as a center for medical arts and technology and open a second Montessori program site at one of the existing elementary schools.
 - ii. **East**: Add an arts-focused program at Bayview HS and use Parkside as the feeder program into the arts HS.
 - iii. Northwest: Add a high achievement college track supported by the Future Farmers group to Vincent HS with its already excellent CTE agriculture program. Add an International Baccalaureate program and enhance the arts focus at Madison HS. Have Morse MS become an IB MYP and be a feeder school for Madison HS.
 - iv. **Southwest:** Expand Greenfield to have an upper and lower campus and accommodate more children in their highly sought-after bi-lingual program.
- 2. Build new facilities in each region, as needed, to address condition and educational suitability of schools.

As examples:

- i. **Central:** Close Douglas temporarily to renovate and create an amazing new space for students from the small K-8 schools in the region.
- ii. **East:** Riverside HS and Gaenslen School are over capacity. Rebuild or renovate to allow greater student enrollment.
- iii. **Northwest:** Both Parkview and 95th Street schools are meeting student achievement expectations, but are over-crowded and have low combined scores. Rebuild or renovate to allow greater school enrollment.



- iv. **Southwest:** Build a state-of-the-art middle school to address the enrollment needs in that region.
- 3. Renovate facilities in all regions to improve instruction and to raise Combined Score of each building to a minimum of 85.
 - a. **Make Priority 1** the schools with a Combined Score of less than 70 and/or Efficiency of greater than 120%. Timeframe for renovation should be the next 3-5 years.
 - b. **Make Priority 2** the schools with a Combined Score of less than 75 and/or Efficiency greater than 100%. Timeframe for renovation should be the next 5-15 years.
 - c. Continue to improve schools with a goal of raising <u>all schools</u> to a Combined Score of 85 over the next 20 years.

As examples:

i. **Central:** There are 14 Priority 1 schools and 11 Priority 2 schools.

ii. **East:** There are 16 Priority 1 and nine Priority 2 schools.

iii. **Northwest:** There are 11 Priority 1 schools and 14 Priority 2 schools.

iv. **Southwest:** There are 20 Priority 1 and four Priority 2 schools. Most schools are overcrowded.

4. Reduce capacity/number of facilities across the district to allow for reallocation of funds to support instruction. Schools in each region should be repurposed/closed based on identified criteria, including facilities that do not meet program standards, are high in operational or energy costs, do not have ADA access or air conditioning, have difficulty meeting student achievement standards, or have other issues. These may be schools that are also difficult to staff with great teachers and leaders. The overall goal is to bring district-wide enrollment and capacity into balance and enhance educational opportunities.

Major Criteria for Repurposing/closure selection:

- Combined Score for facility assessments
- Distribution of schools aligned to distribution of students
- Neighborhood considerations and dynamics
- Strategic land use planning
- Program considerations
- Historic preservation
- Access issues and transportation issues
- Air conditioning
- Equity Index

As examples for the next 3-10 years:

i. East: Repurpose 4 schoolsii. Central: Repurpose 8 schools



iii. Northwest: Repurpose 8 schools

iv. Southwest: Add 4 schools

SUPPORTING RECOMMENDATIONS

- 1. Review and revise Administrative policies 5.01 and 7.05
- 2. Review and adopt Facility Standards, including capacity guidelines.
- 3. Monitor and adjust Priority 1 and 2 schools based on annual enrollment review.
- 4. Identify and install partners in buildings:
 - a. Partners in support of students medical, dental, mental health
 - b. Partners in support of community social services, housing, child care, commerce
 - c. Partners in support of both students and community/neighborhoods job training, alternative schedules day/night use.
- 5. Monitor and adjust Repurpose/Close list based on annual enrollment review.
- 6. Review continued use of administrative and support spaces based on costs and need.
- 7. Continue to connect and communicate with the community.